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MICHIGAN DEMONSTRATION PROJECT

ALCOHOLISM SERVICES ELIGIBLE UNDER MEDICARE AND MEDICAID

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MICHIGAN DEMONSTRATION PROJECT
ALCOHOLISM SERVICES ELIGIBLE UNDER MEDICARE AND MEDICAID

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Office of Substance Abuse Services
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EXECUTIVE SUMMARY

The Medicare and Medicaid programs constitute vitally important financial resources for the health care of aged, low income, and low income medically needy individuals. Current Medicare and Medicaid regulations, however, contain programmatic constraints that restrict the availability of alcohol abuse/alcoholism treatment services to Medicare beneficiaries and Medicaid recipients by limiting reimbursement to only inpatient and outpatient hospitals, nursing homes, and physicians. Excluded from enrollment and reimbursement are freestanding detoxification, residential, and outpatient treatment facilities.

In response to Congressional concerns regarding dramatically increasing health care costs (including those related to alcoholism), the Health Care Financing Administration (HCFA) and the National Institute for Alcoholism and Alcohol Abuse (NIAAA) in 1980 solicited applications from states to participate in a four-year Medicare/Medicaid Alcoholism Treatment Demonstration Project. The overall purpose of this project was to test the feasibility and effectiveness of providing alcoholism treatment services for Medicare beneficiaries and Medicaid recipients in lower cost, freestanding settings. The Office of Substance Abuse Services (OSAS) and the Department of Social Services (DSS), on behalf of the State of Michigan, responded and were jointly awarded the initial grant on September 30, 1981.

The start-up phase lasted almost nine months; reimbursement began with dates of service on and after July 1, 1982. Detoxification, residential, and outpatient counseling were designated as covered treatment services with specific annual benefit limits assigned to each treatment service. Ultimately, 23 freestanding facilities were enrolled as Medicare and Medicaid alcoholism treatment services providers. The last reimbursable date of service for Medicare beneficiaries was September 29, 1985, and the last reimbursable date of service for Medicaid recipients was November 29, 1985.

Prior to the end of the demonstration, it became clear that the project has had several substantial benefits. A substantial number of persons with alcoholism problems received treatment and intervention which they may previously have been denied or was unavailable to them. To the provider organizations participating in the project, skills and abilities in regard to obtaining third party reimbursement has been strongly enhanced. In addition, awareness of the critical importance of complete and accurate recordkeeping has been reinforced. For the state, there has developed a close interagency relationship and cooperative working agreement among state agencies throughout the course of this project, as exemplified in the Project Management Team concept. This cooperation has, in turn, led to the development and implementation of other substance abuse projects, such as the Subacute Substance Abuse

Services project, whereby the Michigan Medicaid Program reimburses for subacute detoxification and rehabilitation in hospitals.

Overall, the demonstration effort has been quite successful in demonstrating that alcoholism treatment services can, indeed, be feasibly and successfully provided in lower-cost settings (freestanding programs).

In July 1984, OSAS and DSS jointly submitted a supplemental proposal to HCFA asking for additional funds to conduct a special evaluation of certain aspects of the Michigan Medicare/Medicaid Alcoholism Demonstration Project. The evaluation proposal was approved in September 1984 with the following conditions:

- "That the evaluation be directed mainly toward an analysis of data to determine if there is a significant decrease in the utilization and total costs of Michigan Medicaid services by Medicaid recipients who have received demonstration provider alcoholism services."

- "That the evaluation would not pursue the state objective to conduct an outcome of (alcoholism) treatment comparison between demonstration and hospital Medicaid recipients."

Analysis of data indicates that there was not a significant reduction in total statewide Medicaid utilization or costs following either hospital or freestanding alcoholism treatment intervention. However, the evaluation has demonstrated the potential realization of vast and significant savings in treatment costs between hospital and freestanding providers. Preliminary findings supporting this position are being shared in this final report as an Addendum. The complete Evaluation Report will be available shortly from OSAS.

INTRODUCTION

Michigan's Comprehensive Substance Abuse Services System

The Office of Substance Abuse Services (OSAS) was designated as the Single State Agency for alcohol and other drug services in Michigan by then Governor William G. Milliken on September 23, 1973. OSAS is an autonomous agency within the Michigan Department of Public Health in that it carries out its responsibilities, mandates and functions independently of the State Health Department except for budget, procurement, and certain administrative functions.

OSAS is responsible for the following activities pertaining to Michigan's comprehensive substance abuse services system:

- Administer state and federal funds statewide (excluding Medicare and Medicaid).
- Provide technical assistance.
- Plan and coordinate services at the state level.
- Contract with local administrative organizations for services.
- Evaluate services.
- Establish management information systems.
- Sponsor training and disseminate information and educational materials.
- License programs.

OSAS contracts for all services funded through state and federal appropriations. OSAS contracts through 18 regional substance abuse coordinating agencies. The coordinating agencies are single or multi-county based, and are designated by OSAS in cooperation with local county Boards of Commissioners to carry out coordinative and administrative responsibilities in fulfilling the terms of their contracts and agreements for the provision of substance abuse services. The coordinating agencies are responsible for the following activities:

- Develop local plans for service delivery.
- Make budget requests for state-administered funds.
- Provide technical assistance.
- Evaluate local services.

The coordinating agencies do not provide direct client services, but subcontract for these with local programs. Of the 529 licensed service providers in the state, approximately 240 have subcontracts with the coordinating agencies and are thus a part of the state and federal funded service delivery system. The remainder of the licensed service providers do not receive state or federal funds through OSAS. Their primary relationship with coordinating agencies is one of regional coordination of services and as well as through the coordinating agency role in program

licensing reviews. All licensed service providers are responsible for the following depending on which services each program seeks licensure for:

- Provide prevention services designed to reduce the occurrence of substance abuse problems.
- Provide casefinding services to assist people in obtaining treatment.
- Provide outpatient, inpatient, and residential treatment.
- Coordinate rehabilitative services with other service providers.

Approximately 5,000 substance abuse workers are employed at licensed service providers.

Medicare and Medicaid Alcoholism Coverage Prior to Demonstration

The Medicare and Medicaid programs constitute vitally important financial resources for health care of aged, low income, and low income medically needy individuals. Prior to the Demonstration, both programs contained certain programmatic constraints that restricted the availability of alcohol treatment services to Medicare beneficiaries and Medicaid recipients by limiting reimbursement to only inpatient and outpatient hospital facilities, nursing homes, and physicians. Both Medicare and Medicaid excluded freestanding detoxification, residential, and outpatient treatment facilities as reimbursement eligible service providers. In addition, alcoholism is considered a psychiatric diagnosis by the Health Care Financing Administration (HCFA). Institutions with more than 50 percent of the beds serving clients with psychiatric diagnoses are designated as Institutions for Mental Disease. In these institutions, services for Medicare and Medicaid clients from 21 to 65 years of age are not eligible for reimbursement. Under the Demonstration, ultimately 23 freestanding facilities were enrolled as Medicare and Medicaid alcoholism services providers.

Medicare and Medicaid regulations limiting reimbursement for alcoholism services to inpatient and outpatient hospital facilities, nursing homes, and physicians remained in place. Because of the limited nature of the Demonstration Project, the vast majority of OSAS-licensed service providers could not qualify for Medicare and Medicaid enrollment and reimbursement and, therefore, availability of alcoholism services to Medicare beneficiaries and Medicaid recipients remains restricted to hospital-based provision of services.

Historical Development of the Demonstration

In response to Congressional concerns regarding dramatically increasing health care costs including those related to alcoholism, HCFA and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in 1980 solicited applications to participate in the Medicare/Medicaid Alcoholism Demonstration Project. The overall purpose of this project was to test the feasibility and effectiveness of providing alcoholism treatment services for Medicare beneficiaries and Medicaid recipients in lower cost, freestanding settings. In January 1981, OSAS and the Michigan Department of Social Services (DSS) jointly submitted grant applications for participation in the project. Federal authorities awarded the initial Michigan grant on September 30, 1981. Upon receipt of the notice of award, OSAS and DSS proceeded with phase-in activities, including creation of the Project Management Team, development of forms and procedures for activity management, management reporting, report production, provider selection, provider training, and provider and beneficiary awareness. The start-up phase lasted almost nine months; reimbursement began with dates of service on and after July 1, 1982. The last reimbursable date of service for Medicare was September 29, 1985, while the last reimbursable date of service for Medicaid was November 29, 1985 under the Demonstration Project waivers.

Need for Alcoholism Demonstration Project

As indicated, the Medicare and Medicaid programs have historically contained certain programmatic constraints restricting the availability of alcohol treatment services. These constraints limit reimbursement to inpatient and outpatient hospitals, nursing homes, and physicians. This restriction in reimbursement precludes Medicare beneficiaries and Medicaid recipients with alcohol problems from seeking and obtaining treatment in lower cost freestanding settings. Freestanding programs have now become recognized nationwide as providing a high quality of service at medically necessary and appropriate levels of care. These settings include, among others, freestanding detoxification and residential treatment facilities, and outpatient counseling centers. Besides often providing a wider range of services than traditional hospital-based Medicare and Medicaid alcoholism treatment providers, freestanding detoxification, residential and outpatient facilities are generally less costly. Congress, in recognizing this situation, directed HCFA and NIAAA through the Demonstration Project to test the feasibility and effectiveness of providing alcoholism treatment services for Medicare beneficiaries and Medicaid recipients in lower cost, freestanding settings. The Governor of Michigan has also recognized the situation by directing, in his last several State of the State messages, that continued efforts be made to explore the utilization of alternative settings in an attempt to contain health care costs.

DISCUSSION

Goals and Objectives of the Project

In a broad perspective, the federal and state goal of this project is to pilot test the feasibility and effectiveness of providing alcoholism treatment services to Medicare beneficiaries and Medicaid recipients in lower cost, freestanding detoxification, residential, and outpatient treatment facilities. Within this framework there are several objectives:

- To test the potential value of providing payments for alcoholism treatment services provided to Medicare beneficiaries and Medicaid recipients in freestanding detoxification, residential, and outpatient counseling centers. (No new programs were started with the Demonstration Project funding.)
- To provide payments for a set of alcoholism treatment services in freestanding detoxification, residential, and outpatient centers.
- To assure, through the use of a quality control system, that designated alcoholism treatment services are provided efficiently and effectively.
- To evaluate the performance of non-physician personnel providing alcoholism treatment in the above settings.
- To have each provider setting furnish an appropriate treatment services program emphasizing the utilization of non-physician personnel.
- To document in each provider setting the role of non-physician personnel in various aspects of treatment administration, including certification of needs for alcoholism treatment, supervision of treatment, and clinical staffing of cases under treatment.
- To test alternative strategies for developing the awareness and involvement of beneficiaries and recipients in alcoholism treatment services.
- To develop a beneficiary awareness program appropriate to the area and population to be served.
- To provide ready access to the facilities and the program services to all eligible people within the target area.

- To establish a basis for considering legislative, regulatory, and policy changes that will result in the most cost effective alcoholism treatment for Medicare beneficiaries and Medicaid recipients.

- To estimate the effects of eliminating those major current legislative, regulatory and policy requirements that impede lower cost and effective services to alcoholic persons.

- To recommend, based on the experience of this project, specific revisions in current Medicare and Medicaid legislation and policies that will result in lower cost and quality services to alcoholic persons.

Demonstration Design

Demonstration Guidelines

The following material summarizes the overall structure of the demonstration effort; parameters and guidelines for identifying the major elements of the demonstration are also noted where relevant or useful.

Service definitions--

As developed by the six state grantees along with NIAAA and HCFA, participating providers were approved for reimbursement for three types of treatment services. The service types and definitions are as follows:

- Detoxification - Detoxification is short-term, 24-hour care and services provided under the observation and supervision of personnel trained in the treatment of physical aspects of alcohol withdrawal. The objective is to restore an alcohol-free state to an individual who may experience threatening withdrawal symptoms if not carefully monitored and treated in the appropriate setting.

- Residential - Residential services are provided on a 24-hour basis to an individual whose condition indicates a need for a controlled and structured environment while receiving alcoholism treatment and rehabilitation services.

- Outpatient counseling - Outpatient counseling provides alcoholism treatment and services on an ambulatory basis to individuals who can benefit from either one-on-one or group counseling scheduled services on a non-residential basis.

Uniform benefits--

As authorized by HCFA, benefit limitations were established for each covered service. The benefit limitations for Medicare are as follows:

- Detoxification - up to five consecutive days in any one episode with unlimited episodes per year.
- Residential - up to 30 days per calendar year.
- Outpatient counseling - up to 45 visits per calendar year.

The benefit limitations for Medicaid are as follows:

- Detoxification - up to five consecutive days in any one episode with unlimited episodes per year.
- Residential - up to 30 days per continuous 12-month period.
- Outpatient counseling - up to 45 hours per continuous 12-month period.

Methodology

The methodology of the project involved integrating the project design into the existing service network with required modifications to comply with Demonstration Project requirements. Providers were selected that already had appropriate OSAS licensure for the covered services and were under existing subcontract with a coordinating agency. Under HCFA guidelines, the project was managed and coordinated on a day-to-day basis by an OSAS staff member with the assistance of a Project Management Team consisting of staff from OSAS, DSS and the Office of Services to the Aging. Coordinating agency personnel were enlisted to act as liaisons with providers and to serve as a second level of review for management purposes. Annual work plans were developed as a means of recognizing, outlining, and organizing necessary tasks. Monthly and quarterly progress reports were written to detail the efforts involved in managing the project and highlighting work tasks to be completed in succeeding periods of time. Invoices were processed, reimbursed, and tallied for evaluation purposes. Periodic oral and written communication was directed to the providers for the purpose of disseminating policy and responding to inquiries.

Selection of Provider Sites

Criteria and Process of Selection

The following criteria were used for provider selection:

- At least 25 percent of caseload must be Medicare or Medicaid eligible.

- Experience with some client billing and collection system, preferably with third party reimbursement.
- Previous adequate performance under contracts with OSAS.
- Under current contract and licensure with OSAS to provide alcoholism treatment services.
- Demonstrated capacity to provide a range of alcoholism treatment services, including case management and referral.
- Willingness to participate in a planned beneficiary awareness program.
- Willingness to participate in quality control procedures which will require verification of eligibility and services delivered.
- Willingness to cooperate in obtaining, collating, and supplying all information and data requested by the federal and state evaluation staff and/or contractors.
- Willingness to participate in technical assistance and training as may be required in accounting procedures, uniform service definitions, uniform billing and cost reporting procedures, uniform data gathering methods, and related project areas.

Within this framework, a ratio of three outpatient providers to two residential providers to one detoxification provider was desired by HCFA in each sub-state locale to be involved. Providers were required to sign special contracts with HCFA and OSAS, and to submit Medicaid enrollment applications with DSS. The Appendix contains more detail regarding each provider organization.

Chronology

An initial group of Michigan freestanding providers, enrolled for the first 12 service months of the project beginning on July 1, 1982, consisted of 16 licensed programs. From this group, one program was dropped from participation on March 1, 1983 because of a lack of suitable clients. The initial group was primarily located in Wayne, Ionia, Kent, Saginaw, Bay and Genesee counties. For the second service year, which began on July 1, 1983, OSAS and DSS requested an additional 94 providers be enrolled. However, only 8 more providers were permitted to enroll, bringing the state total to 23. This was the final total number of providers participating through the end of the project.

Training of Providers

Medicare

Initial training of providers in regard to Medicare cost reporting and billing procedures took place on June 8-9, 1982. A thorough review of cost reporting and billing procedures was presented to providers by HCFA staff at that time. Among other directives, providers were instructed to have all Medicare beneficiaries and Medicaid recipients sign a Medicare/Medicaid Client Informed Consent And Certification Statement and a Medicare/Medicaid Client Information Release Authorization. Medicare billing and procedure manuals were distributed to providers. Additional seminars were held during July 1983 and June 1984 for training of new providers and as refreshers for existing providers. These last two seminars were staffed by OSAS and DSS personnel. Throughout the project, Medicare/Medicaid Programmatic Memoranda were distributed by OSAS to providers for the purpose of disseminating new policy and clarifying existing policy and procedures. Periodic site visits to coordinating agencies and providers were made by OSAS and DSS to assist providers; OSAS and DSS staff were also available through mail and telephone communication. HCFA staff were also available and served as the primary resource for resolving Medicare cost reporting and billing procedure issues.

Medicaid

As indicated, billing seminars occurred on June 8-9, 1982, and during July 1983 and June 1984. In addition, a special Medical Assistance Program Manual prepared for the newly established freestanding alcoholism treatment provider type was written by DSS and distributed to providers. OSAS and DSS staff were available to answer any billing questions that arose; periodic site visits were made to assist in specific tasks. Medicare/Medicaid Programmatic Memoranda were distributed through the course of the project. Perhaps the most successful ongoing learning tools were the OSAS billing invoice error listings and DSS Remittance Advices (i.e., claims status forms) prepared and sent to providers after review by OSAS and DSS of all Medicaid invoices submitted by providers for reimbursement. The OSAS billing invoice error listings specified accuracy and completion items as well as benefit maximums. The Remittance Advices specified the exact reason(s) for every pend (i.e., delay for review) and rejection of invoices that could not be processed for payment. Until these invoices were sufficiently corrected for submission to DSS and passed further editing through the DSS Invoice Processing system, the provider could not receive reimbursement for the service provided. Throughout the course of the project, and primarily because providers did not receive reimbursement for a service until the claim was free of all error items, there was a steady improvement in the accuracy and completeness of the invoices and a reduction in routine billing questions forwarded to OSAS and DSS.

Cost Reporting and Rate Setting

Procedures

Rates to be applied specific to each provider and service were developed and approved by HCFA since the inception of the project. During the early phases of the Demonstration, OSAS and DSS agreed that Medicare and Medicaid rates would be the same. These rates were based on Medicare cost reports submitted on an annual basis by each provider to HCFA. After review of these cost reports, HCFA issued interim rates (followed later by final rates) for the time period at issue, usually 12 months. OSAS also received a copy of the formal notification by HCFA to each provider regarding both interim and final rates. OSAS then was able to notify DSS to revise its fee screens accordingly to reflect rate changes.

Experience

A major problem that OSAS and DSS have identified is with the rate setting methodology and rates themselves. Both agencies believe that with different cost finding/rate setting development techniques, the rates could have been less than what they ended up to be by the end of the Demonstration. A single and uniform statewide rate for each service type would ideally have been preferred instead of having differing rates for each service for each provider.

Billing

Medicare

Per federal procedures and instructions in the Medicare Manual, providers submitted Medicare invoices directly to HCFA for reimbursement. OSAS received a copy of each invoice for monitoring and management purposes. HCFA was responsible for Medicare invoice processing and reimbursement.

Medicaid

Providers were instructed to submit their invoices to the coordinating agencies for an initial level of review. After the invoices were screened for accuracy and completion at the coordinating agency, they were then submitted in batch to OSAS. At OSAS, in addition to accuracy and completion editing, the invoices were also examined to identify possible exceeding of benefit limitations. After this level of examination and review was completed, the Medicaid invoices were then submitted to DSS for processing and reimbursement. At any stage during this review, an invoice could be pended or rejected for any number of reasons. Only those invoices that were accurate and free of obvious errors were

approved at all levels of review and eventually reimbursed.

Data Management

Because OSAS either reviewed actual invoices (Medicaid) or copies of invoices (Medicare), abstraction and summarization of data from both types of invoices was relatively easily accomplished. In the case of Medicare, OSAS developed and maintained a Benefit Utilization Monitoring System record for each recipient, a provider-by-provider Utilization and Invoice Generation Record on a monthly basis, and a total project Utilization and Invoice Generation Record on a monthly basis. In the case of Medicaid, not only does OSAS maintain the same records as for Medicare; i.e., benefit limitation, provider-by-provider utilization, and total project utilization, but through DSS, OSAS also had access to DSS eligibility and utilization history files for recipients participating in the Demonstration. Through its Treatment Outcome Evaluation System, OSAS has access to admission records, activity logs, and discharge records that are required to be completed by licensed programs for every client treated. Specific to management of Medicaid invoice data, OSAS developed a separate computerized system. All of these efforts enabled OSAS to store, retrieve, analyze, and manage data in a relatively flexible, comprehensive manner.

Administration and Monitoring

Role of HCFA

According to federal policies and regulations established or relevant for this Demonstration project, HCFA was responsible for overall federal-level administration and monitoring. Specifically, this meant that either HCFA developed and distributed policy statements, or had review and approval authority for policy developed by the state grantees. In addition, HCFA was charged with ensuring grantee and provider compliance with HCFA project directives and objectives. For example, HCFA reviewed and approved the recommended list of providers submitted by OSAS, developed the rates, established the covered services, determined the benefit limitations, and conducted regular audits, along with other important responsibilities. For Medicare, an added duty was the processing and reimbursing of invoices. HCFA also selected and managed the federal evaluation consultants.

Role of Grantee

OSAS and DSS jointly submitted the application for the project grant in Michigan. Upon being notified of award, OSAS and DSS decided to initiate an ongoing Project Management Team approach to assure ongoing interagency coordination in attaining appropriate development and implementation of this project. The members of the Project Management Team consisted of staff from OSAS, DSS, and the Office of Services to the Aging. Weekly or biweekly meetings were held through the early

stages of the project with detailed, written agendas beforehand and notes distributed afterward. This team approach proved highly successful in establishing a high degree of cooperation and coordination in the carrying out of necessary assignments and the management and direction of the project.

Aside from the Project Management Team, the Project Director was the focal point for grantee administration. Policy decisions from HCFA or the Project Management Team were the responsibility of the Project Director to carry out. The Director acted as the primary liaison with providers and with administrative agencies (HCFA, OSAS, and DSS). The Project Director was also responsible for ensuring provider compliance with project policies; this activity was accomplished via site visits, provider meetings, and a thorough review of documentation.

Beneficiary and Provider Awareness Program

Development

Alcoholism clients often present themselves for treatment at licensed service providers as the result of casefinding activities. In regard to casefinding activities, OSAS already had in place a unique Public Information Project which has developed into a comprehensive statewide communications system having the ability to target localized types of information to specific communities and audiences. The following is a description of each of the Public Information Project's five components:

- The OSAS News Bureau - The News Bureau is designed to communicate directly with the mass media (e.g., newspapers, radio, television, news services, specialized magazines, etc.) via news releases, feature news tip sheets, backgrounders, media advisories, and personal contacts. The News Bureau also sets up radio and television interviews, responds to requests for information from the media, holds news conferences, and provides some specialized broadcast services (e.g., radio news lines, public service announcements, etc.). Additionally, the News Bureau assists in the preparation of mass media materials utilized by the other four project components.

- The Michigan Clearinghouse for Substance Abuse Information - The Clearinghouse coordinates the distribution of various types of substance abuse information to coordinating agencies, local substance abuse programs, schools, other agencies and the general public. Materials which are either purchased or produced by the Clearinghouse range from pamphlets and brochures to films, other audio-visual resources, training, and educational packets. Printed materials are provided in bulk quantities free of charge. Audio-visual materials are distributed on a loan basis free of charge.

- Internal Communications - Internal communication efforts are designed to meet the information needs of various audiences who relate on a regular basis to OSAS. Specific efforts include a quarterly publication to all coordinating agencies, local substance abuse programs, legislators, other state agencies, and various advisory groups and committees, and a monthly substance abuse resource packet to all local programs and coordinating agencies.

- Cooperative Public Information Network (CPIN) - The CPIN is designed to include representatives of coordinating agencies and local substance abuse programs in the overall public information project. Network members carry out functions similar to the OSAS News Bureau and the Clearinghouse at a local level, receiving resource materials from the State which can be adapted for regional or local use.

- Public Awareness Campaigns - Public Awareness Campaigns are designed to provide information about specific substance abuse issues, and in some cases, to impact on people's attitudes about the use of alcohol and other drugs. Campaign materials include radio and television public service announcements, posters, newspaper advertisements, pamphlets, etc. These materials are distributed via the OSAS News Bureau, the Clearinghouse, and CPIN.

In light of the capabilities of the Public Information Project which are already in place in Michigan, a beneficiary awareness component aimed at alerting Medicare beneficiaries and Medicaid recipients to the services available was implemented. Efforts included:

- Placement of feature articles in localized Senior Citizen newsletters.

- Development and distribution of printed awareness packages through the Michigan Clearinghouse for Substance Abuse Information. Materials were distributed to other local human service agencies, community service groups, appropriate network members, and to local substance abuse providers for their use in explaining the program to others.

- Printing, distribution, and placement of posters and flyers explaining the program in key locations within the project areas.

- Inclusion of information about the program in regular issues of the OSAS News Review (which is one means of interagency communication), the Monthly Resource Packet to coordinating agencies, the monthly Clearinghouse publication, etc. This was utilized as a means of letting the various referral agencies know where to obtain additional information.

- Statewide dissemination of a bulletin by DSS to the local county DSS offices and caseworkers providing a general overview of the project and a listing of the providers with locations.

- Dissemination of a provider bulletin by DSS to physicians and hospitals within the project areas explaining the project and requesting assistance in terms of referrals.

- Dissemination of periodic notices by DSS to all Medicaid recipients informing them of the availability and locations of the services.

- A meeting between the local courts, DSS offices, and the providers.

- Periodic training sessions for alcohol counselors sponsored by the Office of Services to the Aging.

Michigan's substance abuse network not only has a comprehensive communications system, but also is one of the most sophisticated service delivery networks in the country. In nearly every community, local substance abuse programs have established ongoing relationships, interfaces, and referral practices with other local human service providers (e.g., mental health, social services, area councils on the aging, etc.), as well as with law enforcement and judicial agencies, city councils, local county boards of commissioners, etc. The Michigan Coalition on Substance Abuse, which represents more than 2,000 individuals in various walks of life, can readily call upon its members in the various communities to generate awareness and support for a variety of substance abuse-related issues. Tied to the ongoing public information system, the Coalition thus offers another means of implementing a beneficiary awareness program.

All of these activities were implemented at minimal expense and easily localized/targeted to the specific areas involved in the project.

Analysis

While it cannot be definitely determined that the Beneficiary and Provider Awareness Program was successful in regard to having a positive effect on utilization, it appears that some, if not a great deal of, credit can be ascribed to the effort. Before the project began, the 23 providers were not eligible for Medicare and Medicaid enrollment and, therefore, could not obtain reimbursement. It would not have been in the best interests of the providers to focus on attracting Medicare beneficiaries and Medicaid recipients in lieu of either private paying clients or third party insurance covered clients who had insurance that could reimburse freestanding alcoholism treatment. Since the inception of the project, utilization has steadily increased for both Medicare and Medicaid; the Beneficiary and Provider Awareness Program special efforts certainly seemed to have played an important role.

Results

Medicare Utilization

During the course of the first three years* of reimbursable services (7/1/82-6/30/85), Medicare utilization and funding reimbursement steadily increased, led primarily by outpatient counseling. In fact, the dramatic increase in outpatient counseling for all three years more than offset a decrease in residential and detoxification for the last year. The volume provided of all covered services increased from the first year to the second year; this can be explained, in part, by the addition of eight more providers and the beneficiary awareness efforts. However, it is somewhat surprising that residential and detoxification utilization declined from the second to the third year. Average unit cost per covered service increased across all three years of reimbursable service. This can be explained for both Medicare and Medicaid by the steadily increasing HCFA-approved rates and the addition of somewhat more expensive providers. However, these rates are still significantly less than acute care rates. Tables 1 through 3 outline the trends in Medicare utilization, funding reimbursement, and average cost per covered service.

*The original intent of the Demonstration was to have four years of reimbursable service; during the third year of the effort (the second year of services) the federal government shortened the schedule and, thus, the Demonstration did not run for the full four years.

Table 1

Medicare utilization, by covered service:
Michigan, July 1, 1982 - June 30, 1985

	7/1/82-6/30/83	7/1/83-6/30/84	% Change	7/1/84-6/30/85	% Change	Total
Outpatient (visits)	658	1,129	+72	3,223	+185	5,010
Residential (days)	1,072	2,591	+142	1,718	-34	5,381
Detoxification (days)	269	364	+35	282	-23	915

SOURCE: Office of Substance Abuse Services, Michigan Department of Public Health: Data from the Michigan Demonstration Project - Alcoholism Services Eligible under Medicare and Medicaid, July 1, 1982 - June 30, 1985.

Table 2

Medicare generation in dollars, by covered service: Michigan, July 1, 1982 - June 30, 1985

	7/1/82-6/30/83	7/1/83-6/30/84	% Change	7/1/84-6/30/85	% Change	Total
Outpatient (visits)	$30,644	$53,754	+75	$153,934	+186	$238,332
Residential (days)	72,763	188,670	+159	137,970	-27	399,403
Detoxification (days)	23,198	36,453	+57	30,475	-16	90,126
	$126,605	$278,877	+120	$322,379	+16	$727,861

SOURCE: Office of Substance Abuse Services, Michigan Department of Public Health: Data from the Michigan Demonstration Project - Alcoholism Services Eligible under Medicare and Medicaid, July 1, 1982 - June 30, 1985.

Table 3

Medicare cost per unit, by covered service:
Michigan, July 1, 1982 - June 30, 1985

	7/1/82-6/30/83	7/1/83-6/30/84	% Change	7/1/84-6/30/85	% Change
Outpatient (visits)	$46.57	$ 47.61	+2	$ 47.76	+.3
Residential (days)	67.88	72.82	+7	80.31	+10
Detoxification (days)	86.24	100.15	+16	108.07	+8

SOURCE: Office of Substance Abuse Services, Michigan Department of Public Health: Data from the Michigan Demonstration Project - Alcoholism Services Eligible under Medicare and Medicaid, July 1, 1982 - June 30, 1985.

Medicaid Utilization

Medicaid utilization and funding reimbursement, which accounted for the majority of total Demonstration project utilization and funding reimbursement, increased during the course of the first three years (7/1/82-6/30/85) of reimbursable services, except for a decrease in detoxification utilization between the second and third year. Average unit cost increased steadily, and in the case of residential, significantly, from year to year for all covered services. Tables 4 through 6 provide the details regarding trends in Medicaid utilization, funding reimbursement, and average cost per covered service.

Table 4

Medicaid utilization, by covered service:
Michigan, July 1, 1982 - June 30, 1985

	7/1/82-6/30/83	7/1/83-6/30/84	% Change	7/1/84-6/30/85	% Change	Total
Outpatient (hours)	3,387	7,141	+111	10,272	+44	20,800
Residential (days)	4,666	10,568	+126	10,633	+.6	25,867
Detoxification (days)	612	975	+59	865	-11	2,452

SOURCE: Office of Substance Abuse Services, Michigan Department of Public Health: Data from the Michigan Demonstration Project - Alcoholism Services Eligible under Medicare and Medicaid, July 1, 1982 - June 30, 1985.

Table 5

Medicaid generation in dollars, by covered service: Michigan, July 1, 1982 - June 30, 1985

	7/1/82-6/30/83	7/1/83-6/30/84	% Change	7/1/84-6/30/85	% Change	Total
Outpatient (hours)	$119,599	$ 254,007	+112	$ 373,861	+47	$ 747,427
Residential (days)	217,134	693,470	+219	850,828	+23	1,761,432
Detoxification (days)	59,938	95,485	+59	91,252	-4	246,675
	$396,631	$1,042,962	+163	$1,315,941	+26	$2,755,534

SOURCE: Office of Substance Abuse Services, Michigan Department of Public Health: Data from the Michigan Demonstration Project - Alcoholism Services Eligible under Medicare and Medicaid, July 1, 1982 - June 30, 1985.

Table 6

Medicaid cost per unit, by covered service:
Michigan, July 1, 1982 - June 30, 1985

	7/1/82-6/30/83	7/1/83-6/30/84	% Change	7/1/84-6/30/85	% Change
Outpatient (hours)	$35.30	$35.57	+.7	$ 36.40	+2
Residential (days)	46.54	65.62	+41	80.02	+22
Detoxification (days)	97.92	97.93	0	105.49	+8

SOURCE: Office of Substance Abuse Services, Michigan Department of Public Health: Data from the Michigan Demonstration Project - Alcoholism Services Eligible under Medicare and Medicaid, July 1, 1982 - June 30, 1985.

Impact on Providers

One of the primary impacts that the project has had is in assisting providers in becoming more resourceful in obtaining third party reimbursement. By screening all admissions for Medicare and Medicaid eligibility, providers also were able to identify other potential or actual sources of third party reimbursement. This may not have been too important to providers in the past because of the assurance of state and federal grant funding; however, it is now obvious that these sources are not as certain as they once were. It is vital for providers to seek possible third party revenue, and the project, in part, has been critically helpful in this area by aiding in the development and enhancement of providers' use of screening and billing procedures.

Another major impact the project has had on providers is to create a greater awareness of the necessity and importance of complete and accurate recordkeeping. Providers realized that their initial and continued participation in the project depended on the detail and accuracy with which they maintained records pertaining to the project. These records included cost reports, admission and discharge forms, activity logs, client release authorizations, Medicare and Medicaid invoices, as well as other documentation. Ultimately, timely and complete reimburse-

ment depended on the provider and client records, with delays and possibly no reimbursement being the result of faulty records.

A secondary impact has been to add some revenue to the provider network. This added revenue has enabled providers to enhance their service delivery to a certain extent. However, providers were fully aware that the increased revenue was only temporary through the life of the Demonstration project.

Impact on State Administration

The project has had a beneficial impact in regard to state administration, and not solely because of the increased revenue to the service delivery network. As previously indicated, OSAS and DSS utilized the concept of the Project Management Team. After this concept proved its worth through the successful implementation of the project, OSAS and DSS found it quite viable to continue to work together on other projects pertaining to both agencies. An example is the Subacute Substance Abuse Services project. Both agencies identified a need to increase access to subacute detoxification and rehabilitation services for Medicaid recipients while decreasing use of acute care beyond detoxification. It was decided to explore the possibility of enrolling and reimbursing subacute substance abuse units in general hospitals that rendered subacute detoxification and rehabilitation services in inpatient beds. After confirming with HCFA that federal financial participation would be available, these units were successfully enrolled and have proven to be a valuable addition to Medicaid substance abuse coverage.

OSAS and DSS will also be cooperating closely in regard to implementing the continuation of the Medicaid component of the project beyond the demonstration termination of federal financial participation. The State Legislature was convinced of the benefits of the project to the state and authorized funding to OSAS to continue the Medicaid component into FY 1985/86.

CONCLUSION

Federal Evaluation

External evaluation of the project for the federal government will be conducted through Lawrence Johnson and Associates, Inc., a consultant to HCFA. OSAS and DSS have worked closely together throughout the Demonstration in guiding both the federal and state evaluation efforts. Six basic questions have been identified by the national evaluation consultant as priority components of the project to be addressed:

- How do the demonstration providers compare with traditional hospital-based providers on utilization, costs, and outcome associated with alcohol treatment?
- What is the impact of alcoholism treatment through the demonstration on future health care utilization and costs?
- Do demonstration providers provide adequate quality of care?
- To what extent does utilization expand or shift between demonstration and traditional hospital-based providers?
- What is the effect of the demonstration on provider operations?
- What is the impact of prospective versus cost reimbursement on the use and costs of services among demonstration providers?

It is expected that the final national evaluation report will be completed and available in early 1987.

State Evaluation
(See Addendum)

Summary

The feasibility and cost effectiveness of providing alcoholism treatment services in freestanding alcoholism treatment facilities was confirmed. Providers were successful in marketing services to clients. Providers developed effective billing methods. Clients received alcoholism treatment services at appropriate levels of care.

RECOMMENDATIONS

Based on the findings of the state evaluation as indicated in the Addendum, it is recommended that federal Medicare and Medicaid regulations be revised to allow for the enrollment and reimbursement of free-standing detoxification, residential, and outpatient alcoholism treatment facilities. Reimbursement based on standard (flat) rates is appropriate. Benefit limits similar to those for the Demonstration Project are workable/practical. Current service definitions are appropriate, except that outpatient units of service should be in terms of staff hours instead of clients visits. State licensing is helpful in assuring minimum standards of care. Alcoholism should not be considered as a psychiatric diagnosis. Issues surrounding treatment outcomes should be pursued in other research and demonstration efforts specifically intended to examine client outcomes. Consideration should be given to either conducting a similar demonstration for drug abuse (other than alcohol) treatment for Medicare beneficiaries and Medicaid recipients or covering service for drug abuse diagnoses under the same services benefit as provided under the Alcoholism Treatment Demonstration.

NEXT STEPS FOR RESEARCH AND DEMONSTRATION

The following recommendations are offered as possible areas for future research and demonstration:

- Expansion of Medicare/Medicaid enrollment, reimbursement and coverage to freestanding detoxification, residential, and outpatient facilities for substance abuse treatment (not only alcohol).
- Effect of treatment methodology combinations on outcome.
- Effect of alternative rate setting and/or reimbursement methodologies in achieving cost savings.
- Research regarding the small population of high utilizers.
- Research regarding Medicare/Medicaid/GA case mix.
- Research regarding national differences in utilization and cost.
- Effect of prevention efforts.
- Effect of the continuum of care.
- Research regarding changes in diagnoses over time.

PARTICIPATING TREATMENT FACILITIES

Bay County

Bay Area Social Intervention Services, Inc. — Outpatient, Residential
1110 Washington Avenue
Bay City, Michigan 48706
(517) 895-9861 (2 locations)

Genesee County

Transition House — Residential, Detoxification
931 Detroit Street
Flint, Michigan 48503
(313) 232-2091

National Council on Alcoholism — Outpatient
202 E. Boulevard Drive
Flint, Michigan 48503
(313) 767-0350

Insight, Inc. — Outpatient
432 N. Saginaw Street
Flint, Michigan 48502
(313) 228-2255

Insight at Fifth Avenue (Medicare Program Only) — Residential
420 W. Fifth Avenue
Flint, Michigan 48502
(313) 234-6040

St. Joseph County

Substance Abuse Council of St. Joseph County — Outpatient, Residential
119 N. Main Street
Three Rivers, Michigan 49093
(616) 279-5187 (2 locations)

Ingham County

National Council on Alcoholism — Outpatient, Residential
Lansing Regional Area
913 West Holmes Road, Suite 143
Lansing, Michigan 48910
(517) 887-0226

Ionia County

Ionia County Community Mental Health Services — Outpatient
437 W. Lincoln Avenue
Ionia, Michigan 48846
(616) 527-1790

Kent County

Alcohol Outpatient Services, Inc. — Outpatient
1331 Lake Drive, S.E.
Grand Rapids, Michigan 49506
(616) 456-8010

Salvation Army Substance Abuse Services — Residential, Detoxification
1215 E. Fulton, P.O. Box 2603
Grand Rapids, Michigan 49503
(616) 451-0432

Macomb County

Macomb County Salvation Army — Residential, Detoxification
23700 Van Dyke
Warren, Michigan 48089
(313) 757-4090

Substance Abuse Center — Outpatient
29600 Civic Center Boulevard
Warren, Michigan 48093
(313) 573-7583 (2 locations)

Marquette County

Marquette General Hospital
Substance Abuse Services
420 West Magnetic
Marquette, Michigan 49855
(906) 228-4750

Outpatient
Residential

Newaygo County

Life Counseling Services, Inc.
202 West Maple
Fremont, Michigan 49412
(616) 924-2280

Outpatient

Saginaw County

Insight International, Inc.
Suite 305-306 Washburn Building
1230 S. Washington Avenue
Saginaw, Michigan 48601
(517) 755-2173

Outpatient

Saginaw County Department
of Public Health
1321 S. Fayette Street
Saginaw, Michigan 48602
(517) 790-0301

Outpatient
Residential
Detoxification

Washtenaw County

Child & Family Service
of Washtenaw County
704 Spring Street
Ann Arbor, Michigan 48103
(313) 663-2500

Outpatient

Wayne County - (City of Detroit)

Neighborhood Services Organization
Concord Alcohol Intervention
15649 Grand River Avenue
Detroit, Michigan 48227
(313) 836-5524

Outpatient

Elmhurst Home, Inc.
12024 Linwood Avenue
Detroit, Michigan 48206
(313) 883-5864

Residential

Eastwood Community Clinics
13627 Gratiot
Detroit, Michigan 48205
(313) 526-6000

Outpatient

Sacred Heart Rehabilitation Center
569 East Elizabeth Street
Detroit, Michigan 48201
(313) 962-0422

Residential
Detoxification

Wayne County - (Out-County)

Hegira Programs, Inc.
Alcohol Treatment Programs
1375 Inkster Road
Inkster, Michigan 48141
(313) 565-7577 (3 locations)

Outpatient
Residential
Detoxification

Marian Manor Medical Center, Inc.
18591 Quarry Road
Riverview, Michigan 48192
(313) 282-2100

Residential
Detoxification

FIRST REPORT:
ENHANCED EVALUATION
OF

THE MICHIGAN MEDICARE/MEDICAID ALCOHOLISM SERVICES DEMONSTRATION PROJECT MEDICAID COSTS AND UTILIZATION

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The statements contained in this report are solely those of the authors and do not necessarily reflect the views or policies of the Health Care Financing Administration. The grantee assumes responsibility for the accuracy and completeness of the information contained in this report.

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FIRST REPORT:
ENHANCED EVALUATION
OF

THE MICHIGAN MEDICARE/MEDICAID
ALCOHOLISM SERVICES DEMONSTRATION PROJECT
MEDICAID COSTS AND UTILIZATION

ABSTRACT

In July of 1984, the Michigan Office of Substance Abuse Services (OSAS) was awarded $31,000 by the Health Care Financing Administration to perform an evaluation of the Michigan Medicare/Medicaid Alcoholism Services Demonstration Project. The scope of the contract was limited to the examination of Medicaid reimbursed health care expenditures, recipient demographics, and overall Medicaid utilization patterns for the first 830 Medicaid recipients who received services under the Demonstration Project during the first year.

The major focus of the evaluation was directed at determining whether there were overall savings in total Michigan Medicaid health care system costs after providing alcoholism treatment to a cohort of Medicaid recipients through the Demonstration Project.

An additional evaluation area pursued was to determine if there were significant differences in total Michigan Medicaid costs between recipients treated for alcoholism in "freestanding" demonstration provider settings versus recipients treated for alcoholism in the traditional acute care inpatient hospital setting.

A quasi-experimental time series analysis using matched pairs was used as the evaluation design. General alcohol treated Medicaid cohorts were analyzed (Demonstration Treatment Cohort N=830, Hospital Treatment Cohort N=2,924, Dual Treatment Cohort N=311, as well as recipients matched on age, race, sex, county of residence, and continuous Medicaid eligibility N=173 each and three matched sub-groups of N=52 each).

Analysis of the data indicated that there were significant differences between recipients treated in the demonstration settings versus the hospital settings in total health care costs beginning with the onset of alcohol treatment. As a group, the Hospital treated recipients consumed a greater amount of Medicaid dollars while treated in the Hospital setting.

Additionally, it was found that a significant portion of the Demonstration recipients were treated in both settings and consumed the majority of the Medicaid health care resources.

Utilization of the Medicaid health care system by the Dual Treatment cohort outweighed any "positive gains" made by the balance of the Demonstration recipients.

It was also demonstrated that for all major study groups, a reduction in total Medicaid health care expenditures following alcoholism treatment did not occur. Total health care expenditures at 12 as well as at 18 months following the onset of alcohol treatment were not found to be significantly different from pre-alcoholism treatment Medicaid health care expenditures.

The fact that there appears to be no overall reduction in total Medicaid health care expenditures for these recipients leads to many yet unanswered questions. It is our intention to continue to refine the data and address other research areas which affect utilization. This preliminary report is the first of a number of more comprehensive reports which will follow as new research questions are addressed.

INTRODUCTION

In July 1984, the Michigan Office of Substance Abuse Services and the Medical Services Administration, Michigan Department of Social Services, jointly submitted a proposal to the Health Care Financing Administration (HCFA), Department of Health and Human Services asking for support to conduct an evaluation of certain aspects of the Michigan Medicare/Medicaid Alcoholism Services Demonstration. This federally initiated national demonstration project provided reimbursement to "freestanding" alcoholism treatment facilities which provided alcoholism treatment to Medicare beneficiaries and Medicaid recipients.

The proposal submitted to HCFA contained the following evaluation questions that we asked to study:

1) Is there a significant difference in the utilization of total Medicaid services and costs between T_1, T_2, and T_3 for those recipients that participated in the demonstration project?

2) Is there a significant difference in the utilization of total Medicaid services and costs between the experimental cohort (participating demonstration recipients) and the comparison cohort (inpatient hospital recipients)?

3) Does a continuum of care (detoxification, residential, and outpatient counseling) exist for recipients participating in the demonstration project? If so, does receiving detoxification services have an affect on lowering the recidivism rate?

4) Is there a significant difference in outcome evaluation data between the two cohorts?

In late September 1984, the evaluation proposal was approved by HCFA with the following conditions mandated in the award letter:

- "That the evaluation be directed mainly toward an analysis of data to determine if there is a significant decrease in the utilization and total costs of Michigan Medicaid services by Medicaid recipients who have received demonstration provider alcoholism services."

- "That the evaluation would not pursue the stated objective to conduct an outcome of (alcoholism) treatment comparison between demonstration and hospital Medicaid recipients."

The decision to not pursue an outcome of treatment comparison and the intent to limit the evaluation to the Medicaid aspects of the Alcoholism Demonstration Project, greatly focused the research questions. The central or focal point of the evaluation was thus directed at determining whether there were overall savings in total Michigan Medicaid

health care system costs after treatment as a result of providing alcoholism treatment to a cohort of Medicaid recipients through the demonstration project.

An additional evaluation area which was judged desirable to pursue was to determine if there were significant differences in total Michigan Medicaid costs between recipients treated for alcoholism in the "free-standing" demonstration provider settings versus the recipients treated in traditional acute care inpatient hospital settings.

A review of the current literature on alcoholism treatment and the impact on total health care utilization and costs indicates that alcoholism treatment is associated with significant reductions in total health care utilization and costs following alcoholism treatment. The literature also documents the rapid increase in health care utilization preceding alcoholism treatment with a corresponding rapid drop in health care utilization following alcoholism treatment.

It was our intent to replicate the previous studies regarding total health care utilization following alcoholism treatment on a different population. All such studies to date have been conducted on private health maintenance organization patients, federal government Aetna enrollees, and military personnel. The significance of this evaluation was to study a low income Medicaid population and to make comparisons between different treatment settings.

METHODS

The Research Design

In order to test whether there were post-treatment cost savings for the Medicaid program as a result of the Michigan Alcoholism Services Demonstration Project, a retrospective quasi-experimental, time series design was judged most appropriate.

This design entailed the analysis of total reimbursed Medicaid health care costs prior to, during, and following the introduction of the alcoholism treatment provided and reimbursed under the Demonstration Project.

The initial overall evaluation strategy was as follows:

Inpatient Hospital Treated Cohort and Demonstration Treated Cohort

Pre-Alcoholism Treatment Activity	Alcoholism Treatment Activity	Post-Alcoholism Treatment Activity
7-1-81 to 6-30-82 Total Medicaid Utilization and Costs	7-1-82 to 6-30-83 Alcoholism Treatment Costs plus All Other Medicaid Health Care Costs	7-1-83 to 12-31-84 Total Medicaid Utilization and Costs

The study design called for a quasi-experimental time series analysis using matched pairs. The data collection phase sought to obtain claims data for the most lengthy pre-treatment and post-treatment time periods as could be obtained within the administrative realities of accessing and retrieving the necessary data. This was done to ascertain whether pre- and post-treatment changes were relatively stable or fluctuated during these periods. The data collection was additionally influenced especially in the post-treatment data due to the fact that under the Michigan Medicaid program, individual providers have up to one year from the date of service to submit Medicaid invoices for payment, unless previous billing activity can be proven. This factor and the associated billing lag (which is the amount of time from date of service rendered to the date reimbursement is made) were factors which contributed to the establishment of an 18-month post-treatment time period.

The time periods into which the claims data were organized were as follows:

- Pre-treatment 7-1-81 through 6-30-82 (12 months)
- Demo/Hospital Treatment 7-1-82 through 6-30-83 (12 months)
- Post-treatment 7-1-83 through 12-31-84 (18 months)

The Medicaid Claims Data Base and Data Collection Process

Data collection as well as the establishment of the individual time periods were derived from the initial 12-month period in which alcoholism services were rendered at the participating "freestanding" sites as part of the Michigan Medicare/Medicaid Alcoholism Services Demonstration. This 12-month time period ran from July 1, 1982 through June 30, 1983 and was identified as T_2.

The initial step in the data collection plan involved identifying all Medicaid recipients that participated in alcoholism treatment at the demonstration sites during the first year of service delivery, 7-1-82 through 6-30-83. This was accomplished by abstracting data from records developed and maintained at the state office. These individual records contained the unique Medicaid identification number, diagnosis, date of service, and type and amount of service rendered. These records were based on Medicaid claims submitted through the Office of Substance Abuse Services to the Medicaid state agency for payment.

This phase involved identifying and listing, by unique Medicaid identification number, all recipients that received alcoholism treatment services in the freestanding Demonstration programs during the time period 7-1-82 through 6-30-83. As a result of this process, 830 individual Medicaid recipients were identified as receiving alcoholism services at the participating demonstration sites.

Following the identification of the total demonstration freestanding treatment cohort (N=830), the next step in the data collection plan was to obtain these recipients' total Medicaid utilization and cost data from the Michigan Department of Social Services, Medical Services Administration.

This phase of the data collection process involved accessing the automated Paid Claims Data File as well as the Medicaid Recipient Eligibility File. Both of these large files are maintained by the Medical Services Administration, within the Michigan Department of Social Services. The Paid Claims Data File is a payment file of all Medicaid utilization that can be accessed by recipient identification number and/or by unique provider type. The Medicaid Recipient Eligibility File contains Medicaid eligibility, by specific time period, and the general demographics variables of age, race, sex, and county of residence.

The design called for obtaining total paid claims data for the 830 recipients for the time period July 1, 1981 through December 31, 1984, 42 months. The 830 Medicaid identification numbers were listed, key punched onto a separate data tape and this tape was in turn run against the Paid Claims Data File to abstract or "strip off" all Medicaid reimbursed claims data for the Demonstration recipients for the entire pre- to post-treatment period. Although 830 recipients were identified in this process, the Paid Claims Data File only had paid out Medicaid

monies for 761 of these recipients. The difference was those claims rejected because of billing errors that were not re-entered into the system.

The Medicaid computer system's primary purpose is to process claims submitted for payment and to then make payments and maintain financial accountability. In addition, the Medical Services Administration has to prioritize the scheduling for the running of historical claims during the time the system is not processing claims or doing other necessary transactions. This request was determined to be a relatively high priority, but implementing the necessary confidentiality system safeguards, ensuring the confidentiality of recipients and providers, and obtaining and formatting the data to begin analysis for the study took over one year. At a later point, it became necessary to create a new file which merged claims and utilization data with eligibility and demographic data.

Another major activity within the data collection phase involved obtaining recipient eligibility histories and demographic characteristics data. The Paid Claims File contains cost and charge data, type of service and provider type; however, recipient eligibility and demographic data needed for matching the Demonstration cohort to the Hospital cohort were maintained in a separate automated data base. Therefore, it was again necessary to run the unique Medicaid identification numbers for the Demonstration cohort and the Inpatient Hospital cohort against the Medicaid Eligibility Data File which contained eligibility and demographic data.

Medicaid Eligibility and Recipient Matching

Once these data tape runs were made against the Medicaid Eligibility Data File, a record of each unique Medicaid recipient's eligibility history was produced for both cohorts. Hospital cohort identification numbers were scrambled to ensure recipient confidentiality.

Medicaid recipient eligibility histories contain detail on Medicaid eligibility, by specific time period, and the general demographic variables of age, race, sex, and county of residence.

In order to account for all Medicaid reimbursed health care costs, an important part of the study was to address program eligibility in depth. To strengthen the overall design and comparison group matching strategy, a decision was made to individually review and verify each recipient's eligibility history for the entire 42-month time period of July 1, 1981 through December 31, 1984.

This procedure was undertaken to determine if breaks in time in recipient eligibility occurred. If a recipient was removed from Medicaid eligible status, the possibility existed that other components of the health care system could be supplementing the Medicaid costs and

utilization. Or, conversely, there could be no health care utilization during these periods. There really was no way of accurately looking at cost if the recipients were not eligible to have health care services reimbursed.

Based upon this reasoning, all recipient eligibility records were reviewed to determine whether continuous eligibility was, in fact, available. The Demonstration cohort and Hospital cohort were then categorized into two more sub-groups: 1) those continuously eligible and, 2) those not continuously eligible.

In examining Medicaid eligibility issues which posed methodological and analytical problems in the evaluation design, an additional analytic issue emerged. In reviewing the Medicaid identifier data for the Demonstration cohort and the Hospital cohort which received alcoholism treatment, it was found that 311 of the 830 demonstration recipients also received alcoholism treatment in the acute care hospital setting during the same time period (T_2) in which they received alcoholism treatment at the demonstration provider sites. In other words, a third cohort (named the "Dual Treatment cohort") was identified which showed cost and utilization data in both the Demonstration cohort data and the Hospital cohort data. Based on this unexpected finding, the study design was expanded from a comparison between the Demonstration cohort and Hospital cohort to include a third cohort of "Dual Treatment cohort".

The next decision was to control for continuous Medicaid "eligibility" for the entire 42-month period prior to matching the recipients on the demographic variables of age, race, sex, and county of residence. This decision was made in an effort to parcel out data on those recipients that moved in and out of the Michigan Medicaid Program during the study periods between 7-1-81 through 12-31-84. Only those recipients who were continuously eligible for the entire time period were available for potential matching on demographic characteristics. It is hoped that this approach in handling the complex issue of eligibility added strength to the overall study's analysis and findings.

Other similar studies have either adjusted for breaks in continuous eligibility by using monthly average dollars generated for non-eligible months (Illinois Medicaid Study 1984) or estimated the continuity of coverage via an examination of claim-filing patterns (Federal Employee Aetna Study 1985). The shortcomings in these approaches are that they assume continuous eligibility, and equal access and opportunity to utilize the health care system. Both of these approaches could artificially inflate true utilization figures by incorporating costs that may not be generated by the recipient.

Following the decision to control for continuous eligibility, it was then decided to control for as many independent variables as possible, in that these variables may have had an effect on the dependent

variable (Medicaid costs). Utilizing the demographic variables available in the Recipient Eligibility Data File, we were able to control for age, race, sex, and county of residence.

Using the records for those persons in the Demonstration cohort who were continuously eligible for 42 months (N=253 of the total N=830) we then proceeded to match them on age, race, sex, and county of residence to the continuously eligible Hospital cohort recipients (N=927 of the total N=2880). The matching process resulted in two groups of 173 Medicaid recipients identically matched on eligibility, year of birth, race, sex, and county of residence. These 173 matched pairs became Study Group I.

A second group, labeled as Study Group II, was identified based on the earlier finding that over one-third (N=311) of the Demonstration cohort also received substance abuse services in the acute care hospital setting during the treatment period (7-1-82 through 6-30-83). This study group was obtained by taking the continuously eligible Dual Treatment cohort (N=83) and matching it against the continuously eligible Demonstration cohort and continuously eligible Hospital cohort matched pairs (N=173 each). After conducting this process, Study Group II contained three groups of 52 recipients matched on eligibility, year of birth, race, sex, and county of residence. As a result, we were able to obtain three groups of identically matched recipients and also had the ability to examine "setting" of alcoholism treatment (Demonstration programs, Inpatient Hospitals, Dual--both settings).

An additional adjustment to the data which was undertaken was the restructuring of the data based on the "onset of treatment month". In the initial study design, the Hospital cohort recipients and Demonstration cohort recipients were to be matched on their demographics and the fact that they had a substance abuse diagnosis during the treatment period (7/1/82-6/30/83). It was not until later in the data analysis phase of the evaluation that it was determined it made good sense to adjust the start dates for treatment to the onset of treatment month for each continuously eligible Medicaid recipient in the study populations. By identifying the date of first substance abuse diagnosis during the treatment time period 7-1-82 to 6-30-83, it became possible to use this "onset of treatment month" as an additional contribution to the validity of the analysis and the findings.

Controlling for the onset of alcohol treatment added considerable strength to the design by making the number of pre-treatment months consistent across all recipients, as well as for making the post-treatment time period comparisons equivalent. This new re-adjustment to the data base added considerable methodological strength, but did result in discarding of some prior pre-treatment data period as well as shortened the post alcoholism treatment time period in some cases.

Following the decision to identify and factor in the "onset of treatment month", all of the claims data was then readjusted for all

continuously eligible recipients. Therefore, the new design captured all Medicaid costs and utilization six months prior to alcoholism treatment and eighteen months following the onset of alcohol treatment, regardless of which month during the treatment year the recipient began alcoholism/substance abuse treatment.

RESULTS

Medicaid Eligibility

As indicated previously, variations in Medicaid eligibility presented one of the more difficult methodological and design problems in the study. To ensure the capturing of total and complete health care expenditures by the State Medicaid system, continuous eligibility was built into the initial recipient matching strategy. By identifying those recipients that were continuously eligible versus those recipients not continuously eligible, we were able to examine eligibility history patterns for all study groups. Unfortunately, eligibility history patterns for other populations (i.e., those who haven't participated in alcoholism treatment) within the Medicaid program were not available, and so we are not able to discuss whether the study populations here differ or are similar to general Medicaid recipients.

Of the 830 persons in the Demonstration cohort, 253 of them (30 percent) were found to be continuously eligible across the entire study period. This proportion of slightly less than one-third continuous eligibility also was found within the Hospital cohort recipients (32 percent) as well as the Dual Treatment cohort (27 percent). Therefore, on a statewide basis, all study groups considered, slightly less than one-third of all recipients were found to be continuously eligible for the entire study period. The majority of the recipients (slightly over 65 percent) were found to have "gaps" in eligibility (see Table 1).

Age, Race, Sex, County of Residence

Table 1 reflects the distribution of the variables of age, race, sex, and county of residence for all of the study populations as well as the individual sub-study groups within these larger populations. The typical recipient who participated in alcohol treatment in the Hospital cohort as well as in the Demonstration cohort and the Dual Treatment cohort was white, female, between the ages of 20 and 39, and resided in Wayne County (greater Detroit metropolitan area). However, the recipient demographics depict a different profile for the continuously eligible sub-populations as well as for Study Group I (two groups of 173 matched cases) and Study Group II (3 separately matched groups of 52 each).

Demographics for the continuously eligible recipients in the Demonstration cohort group (N=253) are very similar to the overall Demonstration cohort, with 20 to 39 year old white females from Wayne County being the typical recipient treated. However, the continuously eligible members of the Hospital cohort group (N=927) were typically older (over age 40), from Wayne County, with race (black/white) and sex almost evenly distributed.

Demographics for members of the Dual Treatment continuously eligible cohort (N=83) were more representative of the total Hospital and Demonstration populations with the typical recipient treated being a young (20 to 39 year old) white female from Wayne County.

DISCUSSION AND CONCLUSION

The primary interest of this study was to determine whether there were overall savings in total Michigan Medicaid health care system costs as a result of providing alcoholism treatment to Medicaid recipients. An associated question was directed at determining if there were significant differences in total Michigan Medicaid costs between recipients treated for alcoholism in the "freestanding" demonstration provider sites versus recipients treated in the traditional acute care inpatient hospital settings.

Table 2 presents total Medicaid health care expenditures for the Demonstration cohort, the Hospital cohort, the Dual Treatment cohort, as well as for the three groups of the continuously eligible recipients and Study Group I (two groups of N=173 each) and Study Group II (three groups of N=52 each).

To determine if total Medicaid health care expenditures decreased after alcoholism treatment, monthly health care costs were calculated prior to and following the onset of alcoholism treatment for all recipients. Monthly mean health care expenditures were aggregated, by population and study group, into 6- and 12-month time periods. The first time period (pre-treatment) was 6 months prior to the onset of alcoholism treatment, the second time period (treatment) was 12 months following the onset of alcoholism treatment and the third time period (post-treatment) an additional 6 months following the onset of alcoholism treatment. All the expenditure and utilization data for all recipients for all populations and study groups were aggregated in this identical fashion.

To address the evaluation concern as to whether there were reduced Medicaid health care expenditures following alcoholism treatment, prior health care expenditures were compared to health care expenditures over an 18-month period following the onset of alcoholism treatment.

As can be noted by examining Table 2, the overall expenditure pattern indicates that Medicaid expenditures increased drastically for the three populations (Hospital, Demonstration and Dual Treatment cohorts) 12 months following the onset of alcoholism treatment. The data also indicates that from 12 to 18 months after the onset of alcoholism treatment total Medicaid health care expenditures decline rapidly yet remain as high as pre-alcoholism total health care expenditures. Significance testing on raw data arithmatic group means, log transformed data group means, and group means adjusted for inflation indicated no significant difference between pre-alcoholism treatment total health care expenditures as compared to post-alcoholism treatment total health care expenditures (18 months following the onset of alcoholism treatment).

This pattern holds true for the Hospital cohort, the Demonstration cohort, the Dual Treatment cohort, as well as for Study Group I (two matched groups of 173 each) and two of the populations in Study Group II

(the Hospital 52 and Demo 52). The only Study Group that showed a significant reduction in total Medicaid expenditures was the Dual Treatment, matched (N=52) sub-population.

The second evaluation question addressed the issue of differences in total Medicaid costs between recipients treated for alcoholism in the "freestanding" demonstration provider sites versus recipients treated in the traditional acute care inpatient hospital settings. Here this study found some rather dramatic differences. Total Medicaid health care expenditures were consistently and significantly lower during the 12-month period following the onset of alcoholism treatment for the Demonstration recipients as compared to the Hospital treated and Dual Treatment recipients.

Pre-alcoholism total Medicaid health care expenditures for the Demonstration cohort and the Hospital cohort were not significantly different. However, total health care expenditures 12 months after the onset of alcoholism treatment were significantly different. The Hospital cohort's total health care expenditures were significantly higher than the Demonstration treated cohort's expenditures during post-treatment following the onset of alcoholism treatment.

The Dual Treatment recipients were by far the greatest utilizers of the Medicaid system. As indicated earlier, the Dual Treatment cohort (N=311) comprised 40 percent of the Demonstration cohort. These 311 recipients accounted for 81 percent of the total Medicaid utilization over the study period for the total demonstration population and 13 percent of the total Medicaid utilization for the Hospital cohort. The remaining 60 percent of the Demonstration recipients (N=450) accounted for only 19 percent of the total Medicaid expenditures during the study period. These Demonstration recipients were generally low utilizers of the Medicaid benefit and showed a general reduction in Medicaid expenditures following alcoholism treatment. However, any gains in overall health care expenditure reductions by this group were outweighed by the Dual Treatment cohort, resulting in an overall lack of change in Medicaid expenditures.

The ability to accurately estimate potential or actual overall cost savings to the State Medicaid system as a result of alcohol treatment is extremely difficult when considering the overall Medicaid eligible population. It appears from preliminary analysis of the data that the modest gains in reduced Medicaid expenditures for the majority of the Demonstration recipients were far outweighed by extremely high utilization by the remaining Dual Treatment recipients. Thus, an overall savings in Medicaid expenditures has not occurred.

Any gains in reduced health care expenditures appear to have been influenced (i.e., negated) by the ability of the recipient to utilize both the higher cost Hospital and Demonstration treatment settings.

The Hospital, Demonstration, and Dual Treatment cohorts pre-alcoholism treatment monthly health care costs were on an equal basis. However, total health care expenditures were significantly higher after the onset of alcohol treatment for the Hospital Treated and Dual Treatment cohorts, as compared to the Demonstration cohort recipients.

Considerable cost savings could be realized if the Demonstration (freestanding) provider sites were the predominate setting for alcoholism treatment. However, due to the limited number of demonstration sites, limited resources and the recipient's ability to move in and out of both systems, any gains are outweighed by the higher hospital setting costs.

Conclusion

The purpose of this evaluation was twofold. First, the evaluation was directed at determining whether there were overall savings in total Medicaid health care expenditures as a result of providing alcoholism treatment. Second, whether there were significant differences in total Medicaid health care expenditures between recipients treated for alcoholism in the "freestanding" demonstration provider sites versus the traditional acute care inpatient hospital settings.

Preliminary analysis of the data indicates that there are significant differences between recipients treated in the demonstration setting versus the hospital setting in total health care costs beginning with the onset of alcohol treatment. As a group, the Hospital Treated recipients consumed a greater amount of Medicaid dollars while treated in the hospital setting.

Additionally, it was found that a relatively significant portion of the Demonstration recipients (that, as it turned out, were treated in both settings) consumed the majority of Medicaid health care resources. The utilization of the Medicaid health care system by these recipients outweighed any "positive gains" made by the balance of the Demonstration recipients.

It was also demonstrated that for all major groups studied, a reduction in total Medicaid health care expenditures following alcoholism treatment did not occur. Total health care expenditures at 12 as well as at 18 months following the onset of alcohol treatment were found not to be significantly different from pre-alcoholism treatment Medicaid health care expenditures.

When analyzed as total populations, sub-populations and matched study groups, and controlling for the "onset of alcohol treatment", age, race, sex, county of residence and continuous eligibility, there were some slight savings in some recipient groups; however, all gains were negated by extremely high utilization by other recipients (i.e., Dual Treatment group N=311).

The fact that there appears to be no overall reduction in total Medicaid health care expenditures leads to many yet unanswered questions. It is our intention to continue to refine the data and to address the following research areas:

- Does Medicaid program eligibility type (in particular, disability) within the general category of Medicaid eligibility have an effect on total cost and utilization?
- Are changes in diagnosis patterns over time accounting for the "no reduction" in total health care expenditures?
- Has the alcoholism been treated and are co/morbid conditions accounting for continued health care costs?
- Does alcoholism treatment in post-periods account for "no reduction" in total health care expenditures?
- Does type and amount of alcoholism treatment result in differences in total health care utilization?
- Can "level of illness" prior to alcoholism treatment be identified, quantified and controlled, as an additional variable? What would it effect?
- Would a more longitudinal post-treatment period (i.e., beyond 18 months) show a reduction in total Medicaid expenditures?
- Can the "high utilizers" be identified, studied separately and specific recommendations be made for future policy direction in how to handle this seemingly unique group of recipients?

There are undoubtedly a number of other questions which can be developed and addressed by analysis of the data used for this study. We would hope to be able to continue our efforts in this examination of how health care utilization and costs interact and relate to alcohol and other drug abuse problems.

We would like to acknowledge the support and encouragement provided to us by all those involved in the Demonstration effort at the Health Care Financing Administration, the National Institute on Alcohol Abuse and Alcoholism, the Michigan Department of Social Services Medical Services Administration, and many others.

Table 1

MICHIGAN MEDICAID ALCOHOLISM DEMONSTRATION
SPECIAL EVALUATION

Demographic Variables by Total Sample and Sub-Study Groups

Demographic Variables	First Year Demonstration Recipients N = 830		Hospital Treated Recipients N = 2880		Continuously Eligible Demonstration Recipients N = 253		Continuously Eligible Hospital Treated Recipients N= 927		Demonstration and Hospital Treated Group N = 311		Continuously Eligible Dual Treated Group N = 83		Study Group I Continuously Eligible Matched Demonstration Only; Hospital Only; Dual Treated Groups of 173 Each) N = 173		Study Group II Continuously Eligible Matched Demonstration Only; Hospital Only; Dual Treated Groups (3 Groups of 52 Each) N = 52	
AGE	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
19 or less	23	2.7	85	3.0	7	2.8	25	2.7	6	1.9	1	1.2	4	2.3	0	0.0
20-39	574	69.1	1569	54.5	152	60.1	414	44.6	194	62.4	48	57.8	116	67.0	33	63.46
40 or over	233	28.7	1226	42.6	94	37.1	488	52.6	111	35.7	34	41.0	53	30.6	19	36.53
Total	830	100.0	2880	100.0	253	100.0	927	100.0	311	100.0	83	100.0	173	100.0	52	100.0
RACE																
White	582	70.1	1659	57.6	157	62.1	446	48.1	192	61.7	46	55.4	107	61.8	35	67.3
Black	196	23.6	1068	37.1	79	31.2	441	47.6	97	31.2	34	41.0	61	35.3	17	32.7
Other	52	6.3	153	5.3	17	6.7	40	4.3	22	7.1	3	3.6	5	2.9	0	0.0
Total	830	100.0	2880	100.0	253	100.0	927	100.0	311	100.0	83	100.0	173	100.0	52	100.0
SEX																
Male	469	56.5	1757	61.0	110	43.5	468	50.5	176	56.6	44	53.0	62	35.8	24	46.2
Female	361	43.5	1123	39.0	143	56.5	459	49.5	135	43.4	39	47.0	111	64.2	28	53.8
Total	830	100.0	2880	100.0	253	100.0	927	100.0	311	100.0	83	100.0	173	100.0	52	100.0
COUNTY																
Bay	63	7.6	70	2.4	17	6.7	20	2.2	13	4.2	3	3.6	8	4.6	1	1.9
Genesee	150	18.1	188	6.5	57	22.5	76	8.2	41	13.1	14	16.9	37	21.4	9	17.3
Kent	147	17.7	102	3.5	43	17.0	28	3.0	33	10.6	13	15.7	14	8.1	7	13.5
Saginaw	67	8.1	92	3.2	24	9.5	30	3.2	17	5.5	6	7.2	19	11.0	5	9.6
Wayne	172	20.7	1189	41.3	58	22.9	397	42.8	96	30.9	28	33.7	45	26.0	14	27.0
Other	231	27.8	1239	43.0	54	21.3	376	40.6	111	35.7	19	22.9	50	28.9	16	30.7
Total	830	100.0	2880	100.0	253	100.0	927	100.0	311	100.0	83	100.0	173	100.0	52	100.0

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TABLE 2

Michigan Medicaid Alcoholism Project

Total Health Care Expenditures Before
And After Alcoholism Treatment

Population by Treatment Setting		6 Months Before Treatment		12 Months After Onset of Treatment		Additional 6 Months After Onset of Treatment		24-Month Totals	
		Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient
Hospital	2,924	3,504,691.11	199.76	27,075,379.16	771.64	12,228,255.55	697.00	42,808,325.82	610.01
Freestanding	761	1,179,884.65	258.40	4,085,559.98	447.38	1,856,912.46	406.68	7,122,357.09	389.96
Both Settings	311	460,630.39	246.86	3,576,963.17	958.45	1,697,614.78	909.76	5,735,208.34	768.38
Hospital only	2,613	3,044,060.72	194.16	23,498,415.99	749.41	10,530,640.77	671.68	37,073,117.48	591.16
Freestancing only	450	719,254.26	266.39	508,596.81	94.18	159,297.68	58.99	1,387,148.75	128.43
Continuously Eligible Sub-groups		Adjusted for on-set of treatment month							
Hospital	927	1,466,755.02	263.71	5,085,225.36	457.14	1,851,033.60	332.80	8,403,013.98	377.69
Freestanding	253	280,981.80	185.10	672,899.04	221.64	291,744.42	192.19	1,245,625.26	205.14
Both Settings	83	225,091.02	451.99	708,743.64	711.59	157,143.90	315.55	1,090,978.56	547.68
Matched Hospital	173	300,916.20	289.90	970,986.72	467.72	231,183.36	222.72	1,503,086.28	362.01
Matched Freestanding	173	196,091.92	190.84	544,783.92	262.42	202,887.48	195.46	945,763.32	227.78
Hospital	52	60,081.84	192.57	257,868.00	413.25	66,449.76	212.98	384,399.60	308.01
Freestanding	52	51,898.08	166.34	187,243.68	300.07	44,896.80	143.90	284,038.56	227.59
Both Settings	52	164,121.36	526.03	373,900.80	599.20	77,042.16	246.93	615,064.32	492.84

Treatment Settings:

Hospital: Acute care inpatient hospital

Freestanding: H.A.S.D. participating treatment facilities

Both: Recipients that received alcoholism treatment in both the acute care inpatient hospital setting and the participating treatment facility setting.

Continuously Eligible: Those recipients that had uninterrupted medicaid program eligibility for the entire study period.

Recipient Utilization: Total medicaid health care expenditure reimbursed by the State medicaid program.

Adjusted for Onset of Treatment Month: The methodological technique used for the continously eligible recipients which adjusted all the recipient utilization data to the initial date of alcoholism treatment. This technique established equal comparisons in before and after treatment time periods for all recipients.

TABLE 2A

Michigan Medicaid Alcoholism Project

Total Health Care Expenditures Before
And After Alcoholism Treatment
By Treatment Setting

Population by Treatment Setting		6 Months Before Treatment		12 Months After Onset of Treatment		Additional 6 Months After Onset of Treatment		24-Month Totals	
		Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient
Hospital	2,924	3,504,691.11	199.76	27,075,379.16	771.64	12,228,255.55	697.00	42,808,325.82	610.01
Freestanding	761	1,179,884.65	258.40	4,085,559.98	447.38	1,856,912.46	406.68	7,122,357.09	389.96
Both Settings	311	460,530.39	246.86	3,576,963.17	958.45	1,697,614.78	909.76	5,735,208.34	768.38
Hospital only	2,613	3,044,060.72	194.16	23,498,415.99	749.41	10,530,640.77	671.66	37,073,117.48	591.16
Freestanding only	450	719,254.26	266.39	508,596.81	94.18	159,297.68	58.99	1,387,148.75	128.43

Treatment Settings:
Hospital: Acute care inpatient hospital
Freestanding: H.A.S.D. participating treatment facilities
Both: Recipients that received alcoholism treatment in both the acute care inpatient hospital setting and the participating treatment facility setting.
Continuously Eligible: Those recipients that had uninterrputed medicaid program eligibility for the entire study period.
Recipient Utilization: Total medicaid health care expenditure reimbursed by the State medicaid program.
Adjusted for Onset of Treatment Month: The methodological technique used for the continously eligible recipients which adjusted all the recipient utilization data to the initial date of alcoholism treatment. This technique established established equal comparisons in before and after treatment time periods for all recipients.

TABLE 26

Michigan Medicaid Alcoholism Project

Total Health Care Expenditures Before
And After Alcoholism Treatment

By Treatment Setting: Data Adjusted for Onset
of Treatment Month and Continuous Eligibility

Population by Treatment Setting		6 Months Before Treatment		12 Months After Onset of Treatment		Additional 6 Months After Onset of Treatment		24-Month Totals	
		Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient
Hospital	927	1,466,755.02	263.71	5,085,225.36	457.14	1,851,033.60	332.80	8,403,013.98	377.69
Freestanding	253	280,981.80	185.10	672,899.04	221.64	291,744.42	192.19	1,245,625.26	205.14
Both Settings	83	225,091.02	451.99	708,743.64	711.59	157,143.90	315.55	1,090,978.56	547.68

Treatment Settings:

Hospital: Acute care inpatient hospital

Freestanding: P.A.S.D. participating treatment facilities

Both: Recipients that received alcoholism treatment in both the acute care inpatient hospital setting an the participating treatment facility setting.

Continuously Eligible: Those recipients that had uninterrupted medicaid program eligibility for the entire study period.

Recipient Utilization: Total medicaid health care expenditure reimbursed by the State medicaid program.

Adjusted for Onset of Treatment Month: The methodological technique used for the continously eligible recipients which adjusted all the recipient utilization data to the initial date of alcoholism treatment. This technique established equal comparisons in before and after treatment time periods for all recipients.

TABLE 2C

Michigan Medicaid Alcoholism Project

Total Health Care Expenditures Before
And After Alcoholism Treatment
By Treatment Setting: Matched Recipients
With Data Adjusted for Onset of Treatment
Month and Continuous Eligibility

Population by Treatment Setting		6 Months Before Treatment		12 Months After Onset of Treatment		Additional 6 Months After Onset of Treatment		24-Month Totals	
		Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient	Total Dollars	Monthly Avg Per Recipient
Matched Hospital	173	300,916.20	289.90	970,986.72	467.72	231,183.36	222.72	1,503,086.28	362.01
Matched Freestanding	173	198,091.92	190.84	544,783.92	262.42	202,887.48	195.46	945,763.32	227.78
Hospital	52	60,081.84	192.57	257,868.00	413.25	66,449.76	212.98	384,399.60	308.01
Freestanding	52	51,898.08	166.34	187,243.68	300.07	44,896.80	143.90	284,038.56	227.59
Both Settings	52	164,121.36	526.03	373,900.80	599.20	77,042.16	246.93	615,064.32	492.84

Treatment Settings:

Hospital: Acute care inpatient hospital

Freestanding: H.A.S.D. participating treatment facilities

Both: Recipients that received alcoholism treatment in both the acute care inpatient hospital setting an the participating treatment facility setting.

Continuously Eligible: Those recipients that had uninterrupted medicaid program eligibility for the entire study period.

Recipient Utilization: Total medicaid health care expenditure reimbursed by the State medicaid program.

Adjusted for Onset of Treatment Month: The methodological technique used for the continuously eligible recipients which adjusted all the recipient utilization data to the initial date of alcoholism treatment. This technique established equal comparisons in before and after treatment time periods for all recipients.

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